

*Spec. G. fimbriatus*, t. 43. f. 3.  $\beta$

*Cyp. sada*, Buch. P. G.

Four cirri little shorter than the head, pectorals and ventrals falcate.  
D.10: P.—? V.9: A.7.

HAB. Northern parts of Bengal, where it attains a few inches in length.

“The remaining three have each two small cirri.

*Spec. G. macrosomus*,\* t. 43. f. 7.  $\beta$

*Cyp. latus*, Buch P. G. p. 346.

Depth of the body to the entire as one to six, two cirri, scales small,  
D.11: P.13: V.9: A.7: C.20.

HAB. Northern parts of Bengal.

*Spec. Cyp. gohama*, Buch. P. G. p. 346. t. 43. f. 6.  $\beta$

*Cyp. dyangra*. id. Coll.

Is shorter in proportion, and more arched above and below than the former, and has eight rays in the anal.

HAB. Northern parts of Bengal.

*Spec. G. brachypterus*, J. M.

Lower surface of the head flat with a cartilaginous zone behind the mouth like *G. rupiculus*,† a few irregular pores on the snout, thirty-six scales on the lateral line and seven rows across the body.

HAB. Mishmee mountains. Griff. Coll.”

[A coloured drawing of each species is given, together with a detailed account of whatever is known regarding it.]

ART. IV.—*Account of a Journey from Sumbulpûr to Mednipûr, through the Forests of Orissa.* By LIEUT. M. KITTOE.

(Concluded from page 606.)

I marched from Mednipûr about the middle of December of the past year, and proceeded by the regular dawk stages as far as Doodkhundi a small village beyond Ghooteah, distant thirty-six miles. From this place I left the road and proceeded to Gopibullubpûr, a town on the right bank of the Subunreeka river and about eight miles due south.

On first leaving Mednipûr the Cossai river is crossed (forded) and the high iron-stone formation (at the extremity of which the town stands) is quitted. The road (if it deserves such a name) passes over low land as far as the second dawk station called Chardeh, a little beyond this the iron-stone is again met with, and forms the southern limit of the level valley of the Cossai, which is throughout highly cultivated

\* From *Μακρος* long, *σωμα* the body.

† It also agrees with that species in the form of its fins; the presence of two very minute cirri being my chief reason for separating them, I have not thought it necessary to give a figure.

and thickly populated; the chief cultivation appears to be rice, there is however some indigo, also sugar-cane.

From Chardeh to Ektale (the 5th stage) there is but very little clear and cultivated land, consequently much jungle; a little cultivation occurs near Bajannah (the 3rd stage) also near Purooliah (the 4th). The soil is much the same as that of Mednipúr, perhaps a little more sandy. Although there is so much dense jungle, there are evidences of the land having once been cultivated, and were it cleared I should think that the soil would prove rich and well adapted to the growth of cotton.

Ektale is a large village on the edge of the high iron-stone formation, here bordering what may be termed the valley of the Dolung river, and (like that of the Cossai) fertile and well cultivated. There are several large villages right and left of the road towards Ghooteah, which is on the high land to the opposite side of the valley, distant four miles from Ektale.

Messrs. MacDonald have an indigo factory near Ghooteah and much plant is grown on the high grounds in its vicinity.

There appears to be much low jungle to the northward of the road, and a considerable belt to the southward also, beyond this towards the valley of the Subunreeka in the Dholbhoom and Maunbhoom districts (commencing near Ghooteah) the country is open and well cultivated, I remarked some very fine gram and mustard, and should think that superior wheat, barley, and flax might be grown throughout this tract, likewise sugar-cane. The scenery is very beautiful, particularly towards the southern and western horizon, the Semulpal, Kussum, and Baumunghatti hills in Mohurbhunj add greatly to the beauty of the landscape, and when the broad bed of the Subunreeka is full in the rains, it must also contribute no small share of elegance to the picture.

I halted a couple of days near Gopíbullubpúr, which is a very large village belonging to a Gosain; a little to the northward are several other villages close together, the principal of which is Nyabussaun, it gives name to a large purgunnah belonging to Mohurbhunj. The Raja has given it on a long lease to Messrs. MacIntosh, indigo planters, who have several factories on the Maunbhoom side of the river, one of which is opposite to Gopíbullubpúr; their bungalow was burnt down the night previous to my arrival. The Mohurbhunj people appear dissatisfied with the arrangements above alluded to, they seem to be averse to the cultivation of indigo, thinking that it impoverishes the land.

I wished to have advanced to the hills where the pass over which the dawk travels, is situated, but so determined were the people to prevent me, that I was obliged to alter my course. I did not lose much by it as I was enabled to survey the country along the right bank of the river and its vicinity, which had never yet been done. This portion of the Subunreeka valley is very fertile, but, of no great extent inland; undulating ground, and beds of shingle, covered with dense jungle occur, forming a belt that divides it, from the valley of the Boorabalung river, which rising in the Semulpal hills, winds under those of Kussum and Bunkatí, then flowing in a southerly direction towards the Nílгур hills under Balasore, finally empties itself into the sea near Bullramgurhí.

There is little or no fine timber on the belt of high land above alluded to; I passed over it in two marches, and entered the Boorabalung valley, then continued in a north-westerly direction to Bunkatí, the principal village of the purgunnah of Ooperbaugh. I crossed the Boorabalung which is a very clear, rapid stream, about kneedeep, with very steep banks; its course is here very tortuous, there are many rapids; I re-crossed it before reaching Bunkatí near to which place, I halted a couple of days. There are falls over some talcose rocks about a mile below the village, the spot is held sacred. The water does not fall from any great height, but the strange appearance of the rocks and the wooded banks of the stream, which above the falls is still and deep, render the scene very beautiful. The singular appearance of the rocks (talcose) is occasioned by the strata being vertical or nearly so, they lean against a totally different formation, which appears to be basalt in different stages of decomposition.

I here observed a very simple, though ingenious, way of entrapping fish. In one part of the falls, in a narrow space between two rocks, there is a long slanting thatch fastened, from the lower end of which is a fine basket work frame, slanting at a wider angle than the former, and above it; the fish in attempting to leap, fall on to the thatch and slip down to the lower part of it, from whence they cannot escape. The crafty Brahmuns impose on the people by telling them that the presiding "Thacoor" or deity has the power thus to cause the fish to sacrifice themselves to him or her. The Brahmuns remove the fish early in the morning, and cook them in their "Bhog mundup" temple cook-house; the first dish is placed as an offering before the idol, for the consecration of the whole, which is eaten by the attendant priests, or distributed to their friends.

The village of Bunkatí is nearly deserted, as well as most others in

this fine purgunnah ; the farmers are of the Bhoomia cast ; they have been obliged to forsake the lands on account of the serious extortions and acts of injustice inflicted on them by their dissipated and ignorant chief, the Raja of Mohurbhunj. It is much to be regretted that our Government has not the right to exercise more extensive control over the tributary mehaults in general, particularly over this of Mohurbhunj, in which there is so much fine land, that could be brought to favorable account. The ryots cultivate little more than what is sufficient to answer their immediate wants, knowing too well that the production and possession of more, would only afford further grounds and opportunities for their being plundered of all, it is hence that on the occurrence of a bad harvest the poorer people perish from starvation, and its accompaniment, pestilence. I have been told that more than half of the population of all the jungle mehaults has been swept away within the last three or four years from these causes ; judging from the scanty population, and the number of deserted huts to be seen in every village, wherever I have travelled, I am inclined to think that there is little exaggeration in the assertion.

It is scarcely necessary for me to add that it would be hazardous for Europeans to take tracts of country, (were the chiefs to give the lease of them) unless the government would protect their rights. There is an Indigo factory at Jáldá near Seersa in the Oopurbaugh purgunnah ; but as an instance of the uncertainty of procuring labourers, this factory was nearly at a stand still, during the present season, in consequence of the causes above alluded to, (viz. the desertion of the ryots.)

Whilst touching on the subject of Europeans farming in these mehaults, I must add that although the population is at present so scanty and at all times its number uncertain, I feel confident that were purgunnahs taken on long leases with the guarantee of protection on the part of our government there would be (under proper and equitable management on that of the European farmers) no want of ryots of all classes, Boomiahs or Sontauls, and even Dangurs from the northward, who would flock to them for employment ; the wants of these people are few, consequently labour is, and would be, very cheap. The Boomiahs are a powerful and industrious race of people, they are the principal landholders in these parts. The Sontauls are an inferior class, but a cheerful race and make very good labourers ; I have frequently seen eight or ten employed on the road, cheerfully dragging timber carts, with one or two of them playing on a kind of flute, made of the joint of a bamboo, as an accompaniment to the songs of the rest of the party.

There are a few *guallas* located here and there, they generally clan together and have villages to themselves. It would be of great service if some colonies of these useful people (who are usually bearers) were induced to come from the Mogulbundi\* near Buddruc and Cuttack, and to establish themselves in different parts of the road, the only obstacle to dawk travelling would then be removed. I should here observe that the only sure means of establishing a good thoroughfare for both merchants and the dawk, would be for government to purchase the land on each side of the road, to the extent of half a mile each way or more, and then to allot it to the dawk runners and bearers, as well as to other persons requiring it; in a very few years every available beegah of ground would be eagerly taken, cleared and cultivated; for the first five years nothing but a nominal rent should be exacted, and ultimately it could be assessed at a low rate. The purchase would not amount to much, and some of the tracts I should think would be readily rented by Europeans, to wit the Bissai valley, which I shall presently describe.

From Bunkatí I proceeded due north for two short marches, when I reached the foot of the pass called "Nittai Maungur," or the "Thacooraní" ghat, from the high hill of that name, which commands it; this hill (as the name implies) is looked upon as a form of the goddess of destruction; all very prominent mountain peaks, caverns and natural curiosities in general, are deified by the benighted inhabitants of the jungles.

In the evening, I ascended the ghat, it is very rugged and steep, we lighted numerous bonfires to scare the wild beasts, and encamped for the night, in the middle of the road, the only level and clear ground we could find; the following morning we marched to Bissai, passing the Kurrumbilla dawk stage, about midway; it was here and on this occasion where I observed a break in the hills to the northward of the pass, that led to the discovery of a defile by which this valley can be entered with a scarcely perceptible ascent, I further discovered that a fine road existed, by which many years ago merchants used to travel, it is now blocked up with fallen trees, and overgrown with high grass, there are several tanks and many mango topes, one of the former is called the Brinjarah's tank. Judging from the vast number of large *peepul* and *banyan* trees of great size and age that occur by the road side, together with what information I was able to collect, I think that the road must be of great antiquity, and no doubt much frequent-

\* The Mogulbundi includes most of the Purgunnahs in the plains which are under our regulations.

ed, the sites of many villages still appear. The people say that some of the former rebel zemindars of Baumunghattí blocked up this road, to compel the merchants to travel by the lower valley and through the town of that name; whatever truth there may be in this, it is equally probable that the thoroughfare was closed to keep out the Marhatta plunderers towards the end of the last century. I have traced this high road as far as the Byeturní and I have no doubt that it continued on to Sumbulpúr and thence to the western coast.

I halted for the day at the village of Bissai, this place, was together with every other in the valley, destroyed by the Coles in 1834-35, it has been partly rebuilt; before its destruction it extended for near a mile in length, but like most towns in Orissa, it had no depth. I continued my march and survey up the valley by the regular dawk stages and halted for a day at Nowagaon, which place I have before mentioned. Many small villages had sprung up since my visit on my march from Sumbulpúr, but every one had suffered more or less from the herd of wild elephants, sixty in number, which infest this valley and the surrounding country; these beasts had thrown down the huts to obtain the small stores of grain, and had destroyed every description of cultivation from one end of the valley to the other. Many people had put bags of poisoned rice in their stores but the sagacious beasts were not to be caught. I was told that since a number were destroyed by a Gosain many years ago, by poison, not one has taken the bait.

Nowagaon is (as I have said before) within a couple of miles of the westernmost extremity of the valley; it has once been a large town and on the old road, the course of which is apparent from the rows of aged peepul, banyan, jaumun, mango, and other trees, there is a place near this village held sacred, it consists of the remains of a temple under a clump of enormous trees of various kinds; to the branches of one of them, are nailed numerous pieces of iron chains of various sizes, which must have been fixed there as offerings to the destructive deity, whom the poor inhabitants suppose to live in a cavern at the top of one of the high hills which tower above the valley on its north side, close to the village; they believe that at night, she comes from her retreat and with the chains fastens up her herd of tigresses for the purpose of milking them. They further relate that whenever the villagers neglect to make the usual offerings of milk, rice, and fowls, she becomes enraged and loosens some of her tigers, who never fail to carry off both men and cattle. The poor zemindar could not understand why I did not make some offering, I could not speak Ooreyah, therefore I was unable to explain the folly of such degrading superstition.

The Bissai valley is evidently a most fertile tract of country, it is about twenty miles or more in length, and averages on the whole about four in breadth; there are several small streams intersecting it, and one large torrent called "Korkaie" which rises in the Seemulpal mountains to the southward, and crossing the valley between Nowagaon and Arjunbilla, winds down its northern face, turns round the base of the Soolapát hill (one of the points in the trigonometrical survey) then passing through the Baumunghattí valley continuing in a north easterly direction, ultimately joins the Subunreeka somewhere near Ghatissla; the water of this rivulet could be made available for sugar mills.

Leaving Nowagaon I proceeded by a narrow defile towards Jushpurgurh, which place I reached in two marches. I passed the Tinderí ghat (which I have already described) to my right, and found myself in another extensive valley, bounded on one side by the Buddaam range, and on the other by the lofty Seemulpal and Selma mountains. The villages here (like those of Bissai) have all been destroyed, the country has become a perfect wilderness but in the immediate vicinity of Jushpur it is open and well inhabited, the cultivation is chiefly rice and oil seeds.

Jushpurgurh is the capital of a large purgunnah of that name, belonging to Mohurbhunj, it is situated at the confluence of the rivulets Krère and Bundun, on a high mound between the two; the place was in former years strongly stockaded, but at present there is scarcely a vestige of the works left. The town is built round the foot of the mound.

The two rivers assume the name of Krèrebundun below their junction, where, for the distance of a mile they flow in a deep and narrow channel as far as a spot called Ram Teerut; at this place the (gneiss?) rocks stretch across a little below the level of the banks, the Krèrebundun falls over them into a tolerably deep chasm, in which there is a large circular basin; beyond it is a smaller fall into a second pool from whence the river flows over a gravelly bed by a most tortuous course, till it finally empties itself into the Byeturní a little above Jotepúr. The water is considered very good, there are fish in abundance, a very fine Mahasír was caught and brought to me. The mode of fishing here is curious, a net is let down and placed in a circular manner, several persons ply about in canoes and keep tapping the rocks at the bottom with long poles to frighten the fish from under them, the two ends of the net are gradually closed, it is then drawn up and the fish taken out.

There are the remains of a small temple beside the falls, also several strange marks in the rock caused originally by the water: some are

in the shape of a man's foot, others of the hoof of a cow, all have been improved by human skill, and the priests assert that the former are the marks of Ram and Seeta's feet; and the latter those of "Nandi" the bull of Siva.

In examining the nature of the rock and of the shingle bed, I discovered beautiful specimens both of the common and of the precious green serpentine, the natives say it is washed from a small hill above Jushpúr, it is a most beautiful mineral and would make very elegant mantel-piece ornaments; I sent a man to bring me a large quantity, but he never returned.

From Jushpúr I marched through an interminable forest for four days, being misled by the roguery of the zemindar, and the obstinacy of my guard and other attendants. I passed the site of many large villages, and over vast tracts of grass, elephant-high, growing on land where once luxuriant crops had smiled, but all is now a wilderness.

The forest has no underwood, every inch of the land could be cultivated. I left this wilderness, at Sukroorí a large Sassun village near the high road, and which I have mentioned in a former page, it belongs to a junior branch of the Mohurbhunj family styled "Burkonwur," who hold the purgunnah of their kinsman the Mohurbhunj Raja.

We had the misfortune of being overtaken by rain (which set in on the 12th January,) the first march from Jushpúr. We had great difficulty in procuring supplies, and were much tormented by the chicanery of the Zemindars, who were evidently acting under the Raja's orders; the rain fell daily, not a dry spot could be found, consequently every person suffered more or less, sooner or later; we were more fortunate at Sukroorí where there was good ground and plenty of shelter. The natives of the country seemed to take it very coolly, they always construct bowers under shady trees in the centre of which they set fire to huge logs of dry or rotten wood, which are kept constantly burning; at night, all hands sleep in a circle round the fire with their feet towards it, few have any clothing beyond a small piece of cloth, which answers at once the purpose of a dhotí, a covering sheet, and a bag to tie up their store of rice. I am inclined to think that there is a virtue in the dense smoke which is kept up, that it dispels malaria.

We halted three days at Sukroorí, but the rain not clearing, I deemed it expedient to order a move and marched to Gobindpur, the place where I had encountered the fearful tornado on my march from Sumbulpúr, thinking it better for my followers at any rate, to have the advantage of the good water of the Byeturní, I was however mistaken, the incessant rain caused almost every person in camp to catch



jungle fever; for several days I had barely a servant to attend upon me, I was forced even to pitch my own tent, I soon followed the general example likewise my family, for our tents were saturated as well as the ground, which being soft caused the pole to sink into it; not a dry spot was to be found. I broke ground and moved to Phoolkonlaie, where the soil was better, but the fever was too much rooted in all, for the change to be of any benefit; after passing many days in this unhappy state, I resolved on retreating the best way we could to Mednipúr, which station we fortunately reached on the sixth day; this change restored us.

A few remarks on the climate of these tracts, and the apparent causes of sickness may be acceptable.

While at Phoolkonlaie stretched on my back with fever, I observed that the wind below was blowing in a different direction from what it was above, which latter was westerly with a clear sky, we were enveloped in clouds and mist, with variable wind from an easterly direction; this atmosphere, if I may so term it, appeared to extend to the height of the level of the mountain tops, viz. about 1600 feet. The tract of land extending between the Buddaum and Keunjur hills, a span of 50 miles, is considered very unhealthy by all, may it not then be attributed to the absence of free and variable currents which in other more open tracts dispel the earth's vapors and prevent an accumulation, which must be the real cause of sickness? as long as the ground is dry there is less danger, but a single heavy shower followed by cloudy weather causes the poisonous vapor to rise, and there is no escaping its evil effects.

I have here described one cause of fever, but there is another of an opposite nature, viz. the intense heat of the country in the months of May and June, after every particle of vegetation has been consumed by fire. From the description I have heard of this fever I should imagine it to be of the brain; the patient with little warning is seized with a shivering, violent head-ache, and vomiting, delirium quickly follows, and in three days death puts an end to his miseries; natives and Europeans suffer alike from this scourge, for a more particular account of it, I would beg to refer my readers to Mr. Motte's *Journey to the Diamond mines*, alluded to in a former page.

Before I take leave of my readers, I will offer a few remarks on the products of the forests; of these the tussur silk is the most common, and at the same time, most valuable. Lac is also to be found; the production of both in large quantities might be effected, particularly of the former.

The tussur worm is reared on the *assena* trees (*Terminalia alata tomentosa*) which are left standing wherever the jungle is cleared and their branches are kept lopped to a certain height, the more easily to allow of collecting the cocoons, great quantities of which are also found in the forests; they are mostly bartered to the merchants from the plains, but some are spun and wove into coarse pieces for the wealthier ryots and zemindars of the country.

The lac insect is said to abound in the Nursinghur district, north of Dholbloom, it has lately been imported and propagated in that purgunnah. It thrives on the *peepul* "*Ficus religiosa*" also on the *kussum*.

Those people who collect lac and attend to its culture, have certain superstitious rules, which they strictly adhere to, thinking that the slightest neglect will displease the patron deity and cause failure. They believe that there are certain quarters of the moon, and certain days, on which the insects taken from the parent stock must be spread on the trees, the persons who perform this office abstain from food or drink, neither do they wash nor perform any of nature's functions, there are other minor rules which I cannot recall to memory.

Dhooona (the resin of the *sâl* tree) is collected in considerable quantities, and likewise bartered.

I believe that very few deer hides and horns are collected in these parts of Orissa, although there is no scarcity of ruminants of various species, amongst which are the formidable Gowri Gaw (*Bos gaurus*.)

The forest abounds in fine timber, but unfortunately the largest and soundest trees are usually found in the most inaccessible glens. The *Tendoo* or bastard ebony grows to a great size and is very common; some trees produce very fine logs, and of any length, large quantities of this wood rough wrought in thin bars of from two to three feet in length, are exported to Mednipúr where they are sold to the turners and converted into rulers, walking clubs, and hooka pipes, and ultimately sent to Calcutta.

There are many kinds of wood which I have no doubt would answer well for furniture purposes, that of the *nux-vomica* in particular, as no insect will go near it, not even the white ant, it is hard with rather a fine grain and pretty colour; the tree grows to a great height and size.

A small quantity of "*Kuth*" (catechu) is prepared from the Krère "*mimosa catechu*" but not for exportation.

The *pullas* (*Butea Fundosa*) grow in the Keunjur jungles in greater numbers than in those of Mohurbhunj, and if there were a sale for the gum, no doubt the people would collect it.

There are many trees the seeds or nuts of which yield good oil, the *mohwa* or *mowl* (*Bassia latifolia*) in particular is very plentiful.

Having enumerated all the jungle products which came under my notice, I must now add that for Europeans to traffic in any, it would be advisable to establish a mart at Kumererha on the Subunreeka, a large village through which the road passes, it is in the Dholbhoom purgunnah belonging to the Raja of Ghatsilla, it is nearly opposite to Seersa in Mohurbhunj, where there has long been a weekly mart held on Tuesdays; this would soon give way to any new one established on the Dholbhoom side, as property is more secure. There is an indigo factory near the village, belonging to Messrs. Macdonald, the situation is far from unhealthy for there is no heavy jungle very near the place, it is under the influence of the sea breeze which blows up the valley of the river. The hot weather is also rendered less oppressive from the frequency of severe thunder storms, which are attracted by the adjacent hills, they are generally accompanied with showers of rain and hail. The country as I have before said, appears very fertile particularly the lands of Dholbhoom, very good sugar is produced, and I should think that the Mauritius cane would thrive on some of the gravelly jungle tracts, the soil of which remains moist a few inches below the surface. The white ants would be the greatest drawback. I must now conclude, trusting that ere long, British industry and capital will be profitably employed in the jungle me hauls to the benefit of the merchant and of the now unhappy ryots upon whom the light of civilization has not yet dawned.

M. K.

ART. V.—*Note on a pillar found in the Ganges near Pubna, and of another at Kurra near Allahabad.*—By Lieut. M. КИТТОЕ.

The elegant pillar represented in the accompanying plate, Fig. 1. (together with three others) was found a few months back in a chur, (sand bank), in the Ganges near Pubna, and sent to the Asiatic Society, by Mr. Allen of the Civil Service. I requested that gentleman to give me any information he might be able to obtain, to enable me to judge, whether these elegant pieces of Hindú sculpture had been sunk there by accident, or whether they might not have formed part of some temple existing on the spot, previous to the River having taken its present course; the following is the reply he has favoured me with—

“ It was found with three others exactly of a similar kind (one of which has been slightly injured), embedded in a chur on the Ganges